WEST Search History

Hide Items Restore Clear Cancel

DATE: Thursday, November 30, 2006

Hide? Set Name Query

Hit Count

 $DB = PGPB, USPT, USOC, EPAB, JPAB, DWPI; \ PLUR = YES; \ OP = ADJ$

L1 ALANINE ADJ3 AMINOMUTASE

10

END OF SEARCH HISTORY

Record List Display Page 1 of 4

Hit List

First Hit Clear Generate Collection Print Fwd Refs Bkwd Refs

Search Results - Record(s) 1 through 10 of 10 returned.

☐ 1. Document ID: US 20050221466 A1

L1: Entry 1 of 10 File: PGPB

Oct 6, 2005

PGPUB-DOCUMENT-NUMBER: 20050221466

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050221466 A1

TITLE: Alanine 2,3,aminomutase

PUBLICATION-DATE: October 6, 2005

INVENTOR-INFORMATION:

COUNTRY NAME CITY STATE US Liao, Hans H. Eden Prairie MN Minneapolis US Gokarn, Ravi R. MN Gort, Steven J. Brooklyn Center MN US Jessen, Holly J. Chanhassen MN US Selifonova, Olga Plymouth MN US

US-CL-CURRENT: 435/252.3; 435/254.2, 435/325

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw, De |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|----------|

☐ 2. Document ID: US 20030113882 A1

L1: Entry 2 of 10 File: PGPB Jun 19, 2003

PGPUB-DOCUMENT-NUMBER: 20030113882

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030113882 A1

TITLE: Methods for the preparation of beta-amino acids

PUBLICATION-DATE: June 19, 2003

INVENTOR-INFORMATION:

NAME CITY STATE COUNTRY

Frey, Perry A. Madison WI US Ruzicka, Frank J. Lodi WI US

US-CL-CURRENT: <u>435</u>/<u>106</u>

Record List Display Page 2 of 4

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

☐ 3. Document ID: WO 2006047589 A2

L1: Entry 3 of 10

File: EPAB

May 4, 2006

PUB-NO: WO2006047589A2

DOCUMENT-IDENTIFIER: WO 2006047589 A2

TITLE: IMPROVED ALANINE 2, 3-AMINOMUTASES AND RELATED POLYNUCLEOTIDES

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De 4. Document ID: WO 2006022664 A2
L1: Entry 4 of 10 File: EPAB Mar 2, 2006

PUB-NO: WO2006022664A2

DOCUMENT-IDENTIFIER: WO 2006022664 A2 TITLE: ALANINE 2, 3 AMINOMUTASES

Full Title Citation Front Review Classification Date Reference Servences Attachments Claims KWIC Draw. De

☐ 5. Document ID: EP 1575881 A2

L1: Entry 5 of 10

File: EPAB

Sep 21, 2005

PUB-NO: EP001575881A2

DOCUMENT-IDENTIFIER: EP 1575881 A2 TITLE: ALANINE 2,3- AMINOMUTASE

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

☐ 6. Document ID: WO 3062173 A2

L1: Entry 6 of 10

File: EPAB

Jul 31, 2003

PUB-NO: WO003062173A2

DOCUMENT-IDENTIFIER: WO 3062173 A2 TITLE: ALANINE 2,3- AMINOMUTASE

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De

☐ 7. Document ID: WO 2006047589 A2

L1: Entry 7 of 10

File: DWPI

May 4, 2006

DERWENT-ACC-NO: 2006-333028

DERWENT-WEEK: 200634

Record List Display Page 3 of 4

COPYRIGHT 2006 DERWENT INFORMATION LTD

TITLE: Polypeptides having <u>alanine 2,3-aminomutase</u> activity, useful in production of pantothenic acid or 3-hydroxypropionic acid for use in chemical synthesis reactions

Full Title Citation Front Review Classification Date Reference <u>Sequences Attachments</u> Claims KWC Draw Do

8. Document ID: WO 2006022664 A2

L1: Entry 8 of 10

File: DWPI

Mar 2, 2006

DERWENT-ACC-NO: 2006-203925

DERWENT-WEEK: 200621

COPYRIGHT 2006 DERWENT INFORMATION LTD

TITLE: Novel isolated polypeptide comprising <u>alanine 2,3-aminomutase</u> activity and having mutated lysine 2,3-aminomutase amino acid sequence, useful for making beta alanine from alpha alanine, making 3-HP, 1,3-propanediol, pantothenate and CoA

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KIMC Draw De

Document ID: EP 1706457 A2, WO 2005118719 A2

L1: Entry 9 of 10

File: DWPI

Oct 4, 2006

DERWENT-ACC-NO: 2006-231029

DERWENT-WEEK: 200665

COPYRIGHT 2006 DERWENT INFORMATION LTD

TITLE: Novel transformed cell comprising beta-alanine/pyruvate aminotransferase activity, useful for producing 3-hydroxypropionic acid 3-HP from beta-alanine, and for producing ester of 3-HP, 1,3-propanediol and polymerized 3-HP

Full Title Citation Front Review Classification Date Reference Section Affactiments Claims KWIC Draw. De

☐ 10. Document ID: CN 1714146 A, WO 2003062173 A2, AU 2003209293 A1, JP 2005525100 W, MX 2004006894 A1, EP 1575881 A2, US 20050221466 A1, BR 200307010 A

L1: Entry 10 of 10

File: DWPI

Dec 28, 2005

DERWENT-ACC-NO: 2003-646066

DERWENT-WEEK: 200636

COPYRIGHT 2006 DERWENT INFORMATION LTD

TITLE: New cell, comprising <u>alanine 2,3-aminomutase</u> activity, useful for producing beta-alanine from alpha-alanine, 1,3-propanediol, pantothenate, CoA, HP or 1,3-propanediol

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

| Clear | Generate Collection Print Fwd Refs. | land Refs Central OACS |
|-------|-------------------------------------|------------------------|
| F | Terms | Documents |
| | ALANINE ADJ3 AMINOMUTASE | 10 |

Display Format: - Change Format:

Previous Page Next Page Go to Doc#

```
Welcome to STN International! Enter x:x
LOGINID:SSSPTA1800EXS
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                      Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America
 NEWS
 NEWS
                  "Ask CAS" for self-help around the clock
 NEWS 3 AUG 09
                  INSPEC enhanced with 1898-1968 archive
 NEWS · 4
         AUG 28
                  ADISCTI Reloaded and Enhanced
 NEWS 5 AUG 30 CA(SM)/CAplus(SM) Austrian patent law changes
 NEWS 6 SEP 11
                  CA/CAplus enhanced with more pre-1907 records
 NEWS
         SEP 21
                  CA/CAplus fields enhanced with simultaneous left and right
                  truncation
                  CA(SM)/CAplus(SM) display of CA Lexicon enhanced
 NEWS 8
         SEP 25
                  CAS REGISTRY(SM) no longer includes Concord 3D coordinates
 NEWS 9 SEP 25
 NEWS 10 SEP 25
                  CAS REGISTRY (SM) updated with amino acid codes for pyrrolysine
 NEWS 11 SEP 28
                 CEABA-VTB classification code fields reloaded with new
                  classification scheme
 NEWS 12
         OCT 19
                 LOGOFF HOLD duration extended to 120 minutes
 NEWS 13
         OCT 19
                 E-mail format enhanced
 NEWS 14
         OCT 23
                 Option to turn off MARPAT highlighting enhancements available
 NEWS 15 OCT 23
                 CAS Registry Number crossover limit increased to 300,000 in
                  multiple databases
 NEWS 16
         OCT 23
                 The Derwent World Patents Index suite of databases on STN
                  has been enhanced and reloaded
 NEWS 17
         OCT 30
                 CHEMLIST enhanced with new search and display field
 NEWS 18 NOV 03
                  JAPIO enhanced with IPC 8 features and functionality
 NEWS 19 NOV 10
                 CA/CAplus F-Term thesaurus enhanced
                 STN Express with Discover! free maintenance release Version
 NEWS 20 NOV 10
                  8.01c now available
 NEWS 21 NOV 13
                 CA/CAplus pre-1967 chemical substance index entries enhanced
                  with preparation role
         NOV 20
                 CAS Registry Number crossover limit increased to 300,000 in
 NEWS 22
                  additional databases
 NEWS 23
         NOV 20
                  CA/CAplus to MARPAT accession number crossover limit increased
                  to 50,000
         NOV 20
                 CA/CAplus patent kind codes will be updated
 NEWS 24
 NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP)
              AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
              STN Operating Hours Plus Help Desk Availability
 NEWS HOURS
              Welcome Banner and News Items
 NEWS LOGIN
              For general information regarding STN implementation of IPC 8
 NEWS IPC8
 NEWS X25
              X.25 communication option no longer available
Enter NEWS followed by the item number or name to see news on that
specific topic.
  All use of STN is subject to the provisions of the STN Customer
```

agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may

result in loss of user privileges and other penalties.

\$%^STN;HighlightOn= ***;HighlightOff=*** ;

Connecting via Winsock to STN

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'MEDLINE' ENTERED AT 18:09:57 ON 30 NOV 2006

FILE 'SCISEARCH' ENTERED AT 18:09:57 ON 30 NOV 2006 Copyright (c) 2006 The Thomson Corporation

FILE 'LIFESCI' ENTERED AT 18:09:57 ON 30 NOV 2006 COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)

FILE 'BIOTECHDS' ENTERED AT 18:09:57 ON 30 NOV 2006 COPYRIGHT (C) 2006 THE THOMSON CORPORATION

FILE 'BIOSIS' ENTERED AT 18:09:57 ON 30 NOV 2006 Copyright (c) 2006 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 18:09:57 ON 30 NOV 2006 Copyright (c) 2006 Elsevier B.V. All rights reserved.

FILE 'HCAPLUS' ENTERED AT 18:09:57 ON 30 NOV 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'NTIS' ENTERED AT 18:09:57 ON 30 NOV 2006 Compiled and distributed by the NTIS, U.S. Department of Commerce. It contains copyrighted material. All rights reserved. (2006)

FILE 'ESBIOBASE' ENTERED AT 18:09:57 ON 30 NOV 2006 COPYRIGHT (C) 2006 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'BIOTECHNO' ENTERED AT 18:09:57 ON 30 NOV 2006 COPYRIGHT (C) 2006 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'WPIDS' ENTERED AT 18:09:57 ON 30 NOV 2006 COPYRIGHT (C) 2006 THE THOMSON CORPORATION

=> S BETA-ALANINE (5A) (CATAL? OR CONVERT?) 350 BETA-ALANINE (5A) (CATAL? OR CONVERT?)

=> S L1 (5A) (L-ALANINE OR ALPHA-ALANINE) 8 L1 (5A) (L-ALANINE OR ALPHA-ALANINE)

=> DUP REM L2 PROCESSING COMPLETED FOR L2

6 DUP REM L2 (2 DUPLICATES REMOVED)

=> D 1-6

ANSWER 1 OF 6 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN L3 DUPLICATE 1

2006-13722 BIOTECHDS <<LOGINID::20061130>> AN

Polypeptides having alanine 2,3-aminomutase activity, useful in ΤI production of pantothenic acid or 3-hydroxypropionic acid for use in chemical synthesis reactions;

recombinant enzyme protein production via plasmid expression in host cell for pantothenic acid production

ΑU CHATTERJEE R; MITCHELL K W; LOUIE S Y; FOX R J; CHEN M

PA CODEXIS INC

ΡI WO 2006047589 4 May 2006 AΙ WO 2005-US38552 25 Oct 2005

PRAI US 2004-622206 25 Oct 2004; US 2004-622206 25 Oct 2004

Patent DT

English LA

os WPI: 2006-333028 [34]

ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN AN

2003:591126 HCAPLUS <<LOGINID::20061130>>

```
DN
     139:144955
ΤI
     Nucleic acid and polypeptide sequences for alanine 2,3-aminomutase and
     their use for production of .beta.-alanine, pantothenate,
     3-hydroxypropionic acid, and 1,3-propanediol
     Liao, Hans H.; Gokarn, Ravi R.; Gort, Steven J.; Jessen, Holly J.;
IN
     Selifonova, Olga
ΑÝ
     Cargill, Incorporated, USA
SO
     PCT Int. Appl., 119 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                        KIND
                                            APPLICATION NO.
                                                                   DATE
     PATENT NO.
                                DATE
     ------
                        ----
                                -----
                                            _-----
                                                                   ------
                                            WO 2003-US1635
                                                                   20030117
ΡI
     WO 2003062173
                         A2
                                20030731
                         A3
                                20050804
     WO 2003062173
                         C1
     WO 2003062173
                                20051103
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2473716
                         AΑ
                                20030731
                                          CA 2003-2473716
                                                                   20030117
     JP 2005525100
                          T2
                                20050825
                                            JP 2003-562058
                                                                   20030117
     EP 1575881
                          A2
                                20050921
                                            EP 2003-707445
                                                                   20030117
                          A3
                                20050928
     EP 1575881
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                                            CN 2003-804939 .
     CN 1714146
                         Α
                                20051228
                                                                   20030117
                                                                . 20030117
     BR 2003007010
                         Α
                                20060411
                                            BR 2003-7010
     US 2005221466
                        A1
                                20051006
                                            US 2004-502040
                                                                   20040719
PRAI US 2002-350727P
                        P
                                20020118
     US 2002-375785P
                         P
                                20020425
                          W
     WO 2003-US1635
                                20030117
     ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
L3
     1989:193360 HCAPLUS <<LOGINID::20061130>>
AN
DN
     110:193360
     Ruthenium(III) catalyzed oxidation of amino acids by N-bromosuccinimide in
ΤI
     aqueous acetic acid: a kinetic study
     Reddy, P. G.; Kistayya, T.; Khan, Jaffar Ali; Kandlikar, Sushama
AU
     Nizam Coll., Osmania Univ., Hyderabad, 500 001, India
CS
     Zeitschrift fuer Physikalische Chemie (Leipzig) (1988), 269(6), 1253-9
SO
     CODEN: ZPCLAH; ISSN: 0323-4479
DT
     Journal
     English
LA
     ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
L3
     1970:528089 HCAPLUS <<LOGINID::20061130>>
AN
DN
     73:128089
     Neutral amino acid transport in Pseudomonas fluorescens
TT
ΑU
     Hechtman, P.; Scriver, Charles R.
CS
     Res. Inst., Montreal Child. Hosp., Montreal, QC, Can.
     Journal of Bacteriology (1970), 104(2), 857-63
SO
     CODEN: JOBAAY; ISSN: 0021-9193
DT
     Journal
LA
     English
L3
     ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
     1958:115373 HCAPLUS <<LOGINID::20061130>>
ΆN
DN
     52:115373
OREF 52:20512b-d
     Mechanism of transformation of .beta.-alanine in kidney tissue of rats
ΤI
     Severin, S. E.; U, Vei-Min
ΑU
CS
     M. V. Lomonosov State Univ., Moscow
     Doklady Akademii Nauk SSSR (1958), 120, 1314-17
SO
     CODEN: DANKAS; ISSN: 0002-3264
```

```
DТ
     Journal
LA
     Unavailable
T.3
     ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1955:64471 HCAPLUS <<LOGINID::20061130>>
     49:64471
DN
OREF 49:12291h-i,12292a-f
     Coenzyme A. IX. Synthesis of pantothenoylcysteine, its 4'-phosphate, and
     related compounds as possible precursors of the coenzyme
     Baddiley, J.; Mathias, A. P.
ΑU
     Lister Inst. London
CS
SO
     Journal of the Chemical Society (1954) 2803-12
     CODEN: JCSOA9; ISSN: 0368-1769
DT
     Journal
LA
     Unavailable
os
     CASREACT 49:64471
=> D 3-6 KWIC
     ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
AB
     Kinetics of Ru(III) ***catalyzed*** oxidn. of glycine, . ***alpha***
     .- ***alanine*** , . ***beta*** .- ***alanine*** , leucine,
     phenylglycine, and phenylalanine by N-bromosuccinimide in the presence of
     mercuric acetate have been studied in aq. acetic acid medium. . .
     ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
L3
     . . . it was therefore possible to demonstrate active transport of this
AB
     substrate in the absence of intracellular catabolism. The permease which
       ***catalyzes*** the uptake of . ***beta*** .- ***alanine***
ansports L-proline and ***L*** - ***alanine*** . This common
     transports L-proline and
     transport system was distinguished from permeases which transport only
     L-alanine and only L-proline by competition studies in strain.
L3
     ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
     Rat kidney tissue homogenate evidently interacts with . ***beta***
AB
                                                 it to . ***alpha*** .-
                                 ***convert***
       ***alanine*** so as to
       ***alanine*** , then to glutamic acid, then anaerobically to NH3.
     Pyruvic acid, ketoglutaric acid, and deoxyribonucleic acid are the
     apparent factors, resp.,.
     ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN
L3
     . . . gave benzyloxycarbonyl-.beta.-alanyl-DL-.alpha.-alanine, m.
AR
     142-3.degree., hydrogenolyzed over PdO to .beta.-alanyl-DL-.alpha.-
     alanine, m. 228-30.degree., which with VI in the presence of Me2NH yielded
     D-pantothenoyl-DL-. ***alpha*** .- ***alanine*** (Me2NH salt, m.
     132.degree.). . ***beta*** .- ***Alanine*** amide acetate, prepd. by
       ***catalytic*** hydrogenation of PhCH2O2CNHCH2CH2CONH2, gave with VI and
     Me2NH D-pantothenamide. H2NCH2CH(OEt)2 and the mixed anhydride from
     ClCO2Et and VII gave 2-D-pantothenamidoacetaldehyde.
=> S ALANINE 2, 3 AMINOMUTASE
 10 FILES SEARCHED...
            18 ALANINE 2, 3 AMINOMUTASE
=> DUP REM L4
PROCESSING COMPLETED FOR L4
             5 DUP REM L4 (13 DUPLICATES REMOVED)
=> S L5 NOT L3
            4 L5 NOT L3
=> D 1-4
L6
    ANSWER 1 OF 4
                       MEDLINE on STN
     2005547351
                   MEDLINE <<LOGINID::20061130>>
AN
DN
     PubMed ID: 16223264
    Discovery of enzymatic activity using stable isotope metabolite labeling
TI
     and liquid chromatography-mass spectrometry.
ΑU
     Dalluge Joseph J; Liao Hans; Gokarn Ravi; Jessen Holly
CS
     Cargill Scientific Resources Center and Biotechnology Development Center,
```

```
Cargill Incorporated, P.O. 5702, Minneapolis, Minnesota 55440-5702, USA..
     joseph dalluge@cargill.com
     Analytical chemistry, (2005 Oct 15) Vol. 77, No. 20, pp. 6737-40.
ŞO
     Journal code: 0370536. ISSN: 0003-2700.
CY
     United States
ĎΤ
     Journal; Article; (JOURNAL ARTICLE)
ĽΑ
     English
     Priority Journals
FS
     200604
EΜ
ED
     Entered STN: 15 Oct 2005
     Last Updated on STN: 20 Apr 2006
     Entered Medline: 19 Apr 2006
      ANSWER 2 OF 4 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
L6
AN
      2006-09714 BIOTECHDS <<LOGINID::20061130>>
     Novel transformed cell comprising beta-alanine/pyruvate aminotransferase
TI
      activity, useful for producing 3-hydroxypropionic acid 3-HP from
      beta-alanine, and for producing ester of 3-HP, 1,3-propanediol and
      polymerized 3-HP;
         plant engineering and vector expression in cell culture for use in
         3-hydroxypropionic acid production
AU
      LIAO H H; GOKARN R R; GORT S J; JESSEN H J; SELIFONOVA O V
PA
      CARGILL INC
PΙ
      WO 2005118719 15 Dec 2005
      WO 2004-US40827 6 Dec 2004
ΑI
     US 2003-527357 4 Dec 2003; US 2003-527357 4 Dec 2003
PRAI
DT
     Patent
LA
      English
os
      WPI: 2006-231029 [24]
      ANSWER 3 OF 4 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
L6
AN
      2006-08714 BIOTECHDS <<LOGINID::20061130>>
                                              ***alanine***
                                                                 ***2***
ΤI
     Novel isolated polypeptide comprising
        ***3*** - ***aminomutase***
                                      activity and having mutated lysine
      2,3-aminomutase amino acid sequence, useful for making beta alanine from
      alpha alanine, making 3-HP, 1,3-propanediol, pantothenate and CoA;
         involving vector-mediated gene transfer and expression in
         Lactobacillus, Lactococcus, Bacillus, Escherichia cell, plant, yeast
         and fungus cell for recombinant cell preparation for beta-alanine and
         alpha-alanine preparation
      JESSEN H J; GOKARN R R; GORT S J; SELIFONOVA O V; LIAO H H; BRAZEAU B J
AU
PA
      CARGILL INC
PΙ
      WO 2006022664 2 Mar 2006
      WO 2004-US24686 30 Jul 2004
AΙ
PRAI
     WO 2004-US24686 30 Jul 2004; WO 2004-US24686 30 Jul 2004
DT
      Patent
T.A
      English
OS
      WPI: 2006-203925 [21]
      ANSWER 4 OF 4 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
1.6
      2003-23677 BIOTECHDS <<LOGINID::20061130>>
AN
                                                           ***3***
TI
      New cell, comprising
                            ***alanine***
                                               ***2***
                           activity, useful for producing beta-alanine from
        ***aminomutase***
      alpha-alanine, 1,3-propanediol, pantothenate, CoA, HP or 1,3-propanediol;
         vector-mediated Bacillus subtilis, Deinococcus radiodurans,
         Clostridium subterminale, Porphyromonas gingivalis or Escherichia
                                            , ***3*** - ***aminomutase***
                 ***alanine***
                               - ***2***
         alpha-ketopantoate-hydroxymethyltransferase, alpha-ketopantoate-
        reductase and pantothenate-synthase gene transfer and expression in
         Escherichia coli, Bacillus licheniformis, yeast and plant host cell,
         transgenic animal and transgenic plant for beta-alanine,
         1,3-propanediol, pantothenate, coenzyme-A and hydroxypropionic acid
         production
      LIAO H H; GOKARN R R; GORT S J; JESSEN H J; SELIFONOVA O
AU
PA
      CARGILL INC
      WO 2003062173 31 Jul 2003
PΙ
      WO 2003-US1635 17 Jan 2003
ΑI
     US 2002-375785 25 Apr 2002; US 2002-350727 18 Jan 2002
PRAI
DT
      Patent
LA
      English
os
      WPI: 2003-646066 [61]
```

(FILE 'HOME' ENTERED AT 18:09:43 ON 30 NOV 2006)

| • | FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 18:09:57 ON 30 NOV 2006 |
|----|--|
| L1 | 350 S BETA-ALANINE (5A)(CATAL? OR CONVERT?) |
| L2 | 8 S L1 (5A)(L-ALANINE OR ALPHA-ALANINE) |
| L3 | 6 DUP REM L2 (2 DUPLICATES REMOVED) |

L4 18 S ALANINE 2, 3 AMINOMUTASE

L5 5 DUP REM L4 (13 DUPLICATES REMOVED)

L6 4 S L5 NOT L3

=> LOG H

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|---------------------|------------------|
| FULL ESTIMATED COST | 46.03 | 46.24 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -3.00 | -3.00 |

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 18:19:27 ON 30 NOV 2006